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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/631,851	08/01/2003	Kazutaka Kusano	360842010500	9161

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EXAMINER	
NILAND, PATRICK DENNIS	
ART UNIT	**PAPER NUMBER**
1796	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/631,851	KUSANO ET AL.	
	Examiner	Art Unit	
	Patrick D. Niland	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 October 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6,8-12 and 14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,8-12 and 14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. The amendment of 10/29/07 has been entered. Claims 1-6, 8-12, and 14 are pending.

2. Claims 11-12 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. The instant claims 11-12 and 14 recite "including an inorganic powder" which is interpreted in its broadest reasonable sense, as is axiomatic in the patent law, as including anything since there is no closed language. Claim 11 then reads "and wherein the content of a foreign substance is 15 mg per 20 kg or less." It is unclear what the boundary is between the things included in the paste by the above mentioned open language and those things which are excluded by "foreign substance" since "foreign substances" are not specifically defined. The scope of the instant claims is therefore unclear. The applicant argues that "foreign substances" has a well known meaning in the art as referring to contaminates and other undesirable materials that are not purposefully part of the paste or a paste component." The applicant provides no probative evidence that this is well known in the art. The examiner's experience is that one person's "contaminates and other undesirable materials that are not purposefully part of the paste or a paste component" is another's desired component which is clearly evidenced and inferred by the concept of "teaching away" in the patent law. The argument regarding "that are not purposefully part of the paste or a paste component" requires one somehow to determine the motivation behind how a component got into a paste. This creates a situation in which the same composition could be said not to fall within the scope of the claims where there was no motivation to purposely put it there and the same composition would fall within the scope of the

claims where the component was purposely put there. The applicant has not particularly pointed out and distinctly claimd the subject matter which applicant regards as the invention because the applicant does not define the argued "foreign substances" so that the skilled artisan knows what can and cannot be put into the claimed inventions. This fact and the applicant's arguments in this regard appear to create a situation where the applicant can, at a later time, state that some other composition either falls within the scope of the instant claims or does not, as it pleases them, which is contrary to the statute requirement that the applicant particularly point out and distinctly claim the subject matter which applicant regards as the invention in the examined application. This rejection is therefore maintained.

B. The instant claim 11 and the claims which depend therefrom depend from canceled claim 7 as written. It is unclear what is intended by the dependence from the canceled claim.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 11-12 and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by US Pat. No. 6660184 Singh et al..

Singh et al disclose phosphor pastes suitable for application to plasma display panels. Although the reference does not recite a paste production method such as claimed instantly, applicants need show that the process limitations of the rejected claims necessarily produce

pastes with patentably distinct properties from the pastes of the reference. The above claims depend from a canceled claim which cannot be said to require the viscosity of claim 1 from which claims 11-12 and 14 depend since claim 7 in effect does not exist and it is therefore not clear what limitations the claims have when they depend from the canceled claim. The claims are therefore interpreted in their broadest reasonable sense as reading on the inventions of the cited prior art. The abstract of the patentee references "phosphor paste" which is interpreted as including the phosphor argued by the applicant. The applicant's argument is therefore not persuasive. See the abstract and the remainder of the reference in regards to the newly recited limitations of claim 11. See column 1, lines 40-41 for the instantly claimed viscosities which can be present in claims 11-12 and 14. See column 1, line 50; column 2, lines 45-49; and the claims for metal oxides and phosphors. The rejection is therefore maintained as stated herein.

The declaration of Kazutaka Kusano of 3/19/07 has been considered. In view of the above "112" rejection regarding the scope of the instant claims, particularly relating to "foreign substances", it is not seen that the instant claims do not encompass the presence of the "foreign substances" of the declarant. Furthermore, the "foreign substances" are not specifically identified. If they are "inorganic powders" they are specifically encompassed by the instant claims. Thus, it is not seen that the declaration distinguishes the instant claims from the pastes of the cited prior art on at least these two grounds. It is also not seen that the inorganic powders of the instant declaration and those of the patentee began with the same content of foreign substances, which would materially affect the outcome and not be indicative of any unexpected result from the method of making the two pastes. This rejection is therefore maintained.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-6, 8-12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6043604 Horiuchi et al. in view of JP 11-197479 Susumu (machine translation provided and referenced below) and US Pat. No. 6326449 Haldankar.

Horiuchi discloses making pastes of the instantly claimed components using roller mills throughout the entire document, particularly the abstract; column 1, lines 5-7; column 6, line 53 to column 15, line 55, particularly column 15, lines 43-55 which discloses mixing with roller mills and pastes having the instantly claimed viscosities. The instantly claimed paste components are disclosed therein. The patentee does not mention the presence of any foreign substances. It is therefore taken as falling within the scope of the instantly claimed amount of foreign substances.

It would have been obvious to one of ordinary skill in the art at the time of the instantly claimed invention to mix the pastes of Horiuchi with the device of Susumu because Horiuchi discloses mixing their compositions with roller mills generally, though not the instantly claimed roller mill, and Susumu discloses preparing a paste, which falls within the scope of paste of the instant claims, using a device falling within the scope of that of the instant claims (see the figures of the instant application and Susumu) and the mixing of Horiuchi would have been expected to have the benefits disclosed by Susumu where Susumu's device is used as the roller mill. The last 3 lines of the abstract of Susumu fall within the scope of the instant claim 2. It would have been

obvious to one of ordinary skill in the art at the time of the instantly claimed invention to add the liquids of Horiuchi to the mixer of Susumu by metering pump because such devices are commonly employed to give known consistent amounts of liquid components to chemical processing apparatus as shown by Haldankar, column 9, lines 65-67 and the benefits of such devices including reproducible usage of the same amounts of components would be expected to be beneficial in the mixing discussed above for reasons appreciated by the ordinary skilled artisan. The figures of Susumu show the structure of the instant claim 4. Susumu is silent regarding the dimensions of the instant claim 5. It would have been obvious to one of ordinary skill in the art at the time of the instantly claimed invention to use the dimensions of the instant claim 5 in Susumu's device because the reference's silence in this regard is taken as showing these dimensions not to be critical to Susumu so that the ordinary skilled artisan could choose the dimensions which give the most conveniently sized apparatus for their purposes. No unexpected results are seen in a manner commensurate in scope with the instant claim 5 and the cited prior art for these dimensions. Paragraph [0019] of the DETAILED DESCRIPTION of Susumu show that his rollers are the ceramic of the instant claim 6. Column 6, lines 40-67 of Horiuchi falls within the scope of the instant claim 8. The photosensitive monomers of column 11, line 6 et seq. of Horiuchi fall within the scope of the instant claim 10. It is not seen that any of the components of the references are excluded by "foreign substance" for the reasons discussed above. The printing or coating of the black compositions of Horiuchi will give "black stripes" of the instant claims 12 and 14 where the components of the pastes give black compositions such as when the dyes of column 13, lines 34-49 are black. Other items of claims 12 and 14 are encompassed throughout Horiuchi.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick D. Niland whose telephone number is 571-272-1121. The examiner can normally be reached on Monday to Thursday from 10 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patrick D. Niland
Primary Examiner
Art Unit 1714